

In CONTROL

The Dental Infection Control/Safety Supplement to Dental Items of Significance

NUMBER 19

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This will be my last issue of ***InControl*** as I will be PCSing this summer to attend graduate school in Public Health. It has been a fantastic five years being associated with such a great organization as the USAF Dental Investigation Service. I consider myself very fortunate to have worked with such a fine group of individuals. I will truly miss them all.

My replacement will be Lt Col Jennifer Harte. She is presently attending a fellowship in Dental Infection Control at the Centers for Disease Control and Prevention. She will be coming to DIS well prepared to handle this position, and I am confident that she will do an excellent job. After 1 September, please address all future issues dealing with dental infection control and occupational health/safety to Dr Harte.

I want to thank all of you for all your support during this past five years, and I hope our paths cross again sometime in the future.

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DENTAL INFECTION CONTROL AND OCCUPATIONAL HEALTH/SAFETY COURSE

The Organization for Safety and Asepsis Procedures (OSAP) and the Federal Services will conduct the second annual Dental Infection Control and Occupational Health/Safety Course in Bethesda, MD from 7 to 11 October 2002. The course is open to civilians and personnel of the federal dental services who are assigned responsibilities in infection control and occupational health/safety. The course is also appropriate for large civilian dental practices, health maintenance organizations, dental insurers, dental manufacturer sales/marketing staff, dental infection control consultants, dental educators and infection control nurses who work closely with dental clinics. Some of the lectures tentatively scheduled for presentation are Dental Unit Waterlines, Instrument Processing and Quality Control, and Selecting Safety Devices. The course is considered to be of an intermediate level and will most benefit individuals demonstrating competency in basic sciences with an emphasis on dental issues.

AIR FORCE MEDICAL SERVICE (AFMS) GUIDANCE ON NEEDLESTICK SAFETY FOR HEALTHCARE WORKERS (HA POLICY 0000013)

The Needlestick Safety and Prevention Act was signed into law on 2 November 2000. The legislation mandated that certain revisions be made to the Occupational Safety and Health Administration's (OSHA) Bloodborne Pathogen Standard (29 CFR 1910.1030). The revised standard took effect on 18 April 2001. The main provision of this new law was to ensure widespread use of safer medical devices to prevent occupational needlesticks.

In response to the new legislation and the revised standard that it brought about, the Department of

Defense issued a policy (HA 0000013) on 4 June 2001 that states: Effective immediately, it is Department of Defense policy that Medical and Dental Treatment Facilities will comply with newly revised OSHA 29 CFR part 1910 and all applicable state regulations with respect to needlestick safety. All decisions concerning safety devices will be coordinated with the **Regional Tri-Service Product Standardization Boards**. The Clinical Product Teams for needlestick safety devices should include information on any cost increases associated with this policy in their quarterly product standardization report to the TRICARE Management Activity.

This means that all military dental clinics should coordinate their efforts through the Logistics Department before starting any evaluation of safer medical devices.

There are three components of the Needlestick Safety and Prevention Act that all AFMS Medical/Dental Treatment Facilities must be aware of and comply with.

1. Your facility's Exposure Control Plan should be reviewed and updated at least annually (and whenever necessary) to reflect new or modified tasks and procedures that affect occupational exposure. Updating should also reflect new or revised employee positions that may have occupational exposure. The review and update of your plan should also reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens, and annually document the consideration and implementation of appropriate commercially-available, effective safer medical devices designed to eliminate or minimize occupational exposure.
2. Your facility's Exposure Control Plan should solicit input about effective engineering and work practice controls from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps. Specifically, their opinions should be sought when identifying, evaluating, and selecting these controls. Please note that the input received from the employees should also be documented in the Exposure Control Plan.
3. Your facility should establish and maintain a sharps injury log for recording percutaneous injuries from contaminated sharps. The information in the sharps injury log should be recorded and maintained in a way that protects the confidentiality of the injured employee. At a minimum, the log should contain: the type and brand of device involved in the incident, the department or work area where the exposure incident occurred, and an explanation of how the incident occurred.

SUGGESTED CHANGES TO THE EXPOSURE CONTROL PLAN

The following changes to the Exposure Control Plan should be considered to stay current with the revised Bloodborne Pathogens Standard issued by OSHA.

One change involves **Engineering Controls**, which are controls that isolate or remove a hazard from the workplace. Examples of engineering controls that might be used in a dental clinic are sharps containers, rubber dams, needleless or shielded needle devices, and high-volume evacuators. The following is an example of what DIS suggests be added to a facility's exposure control plan to document that specific engineering controls have been evaluated.

New Engineering Controls Evaluation Record

In this clinic, the following engineering controls have been evaluated and/or implemented for appropriate usage in a dental setting:

Engineering Control	Date Evaluated	Evaluated By	Results of Evaluation (implemented or not appropriate)
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Input has been solicited from non-managerial employees responsible for direct patient care in the identification, evaluation and selection of effective engineering and work practice controls, using the following process (e.g. meetings, suggestion box, questionnaire, pilot testing): _____.

The following non-managerial employees were involved in this process, by name and/or position: _____.

Since engineering controls must be examined routinely and maintained or replaced as needed to ensure their effectiveness (e.g., inspecting sharps containers daily to make sure they are not overfilled), DIS recommends the following also be added to your Exposure Control Plan:

Current Engineering Controls Maintenance Schedule

In this clinic, engineering controls are inspected and maintained or replaced as follows:

Engineering Control	Inspection/Maintenance	Assigned To

OSHA ISSUES NEW COMPLIANCE DIRECTIVE

The Occupational Safety and Health Administration (OSHA) has issued an updated compliance directive (CPL 2-2.69) that replaces an earlier directive issued in November 1999. The new directive includes revisions mandated by the Needlestick Safety and Prevention Act.

The purpose of the directive is to advise OSHA compliance officers on how to enforce regulations. The directive is available to the public, and provides insight into what OSHA inspectors might look for during inspections.

The directive also highlights the primary new requirements of the Needlestick Safety and Prevention Act. In the directive, OSHA mentions that no one safer medical device is appropriate for all situations, and that employers must consider and implement devices that are appropriate, commercially available, and effective. Also included in the directive are engineering control evaluation forms, a web site resource list, and a model exposure control plan that incorporates the most updated guidelines from the Centers for Disease Control and Prevention.

The directive can be accessed from the OSHA website at:
www.osha-slc.gov/OshDoc/Directive_data/CPL_2-2_69.html.

POST-EXPOSURE PROTOCOL

The Bloodborne Pathogens Standard requires employers to have a written protocol for managing occupational exposures to bloodborne pathogens. This requirement is based on the current guidelines issued by the Centers for Disease Control and Prevention (CDC). In June 2001, the CDC updated and consolidated all previous recommendations for the management of healthcare personnel who may be exposed to blood and other body fluids.

It is important that dental clinics select a healthcare professional before an exposure incident occurs. This individual must be familiar with the CDC-recommended evaluation and treatment protocols. He/she should also be readily available in the event of an exposure incident during work hours and have access to

post-exposure prophylaxis as necessary. The dental clinic should have a point of contact if there is an exposure incident after normal working hours.

OSHA MAY ISSUE GUIDELINES ON ERGONOMICS

OSHA may pursue non-regulatory approaches to providing guidance on ergonomics instead of issuing a new rule. Formal announcement of the Bush administration's ergonomics plan, which was delayed due to the events on September 11, is expected to be released soon. Instead of regulating ergonomics, OSHA may use grants, web outreach, best practices, and mentorship programs associated with Voluntary Protection Programs. A small business conference on ergonomics may also be scheduled. OSHA may issue non-regulatory guidelines on ergonomics, which would clearly delineate what inspectors would be prohibited from citing from the guidelines during inspections.

OSHA has been trying to draft an ergonomics standard for more than 10 years. The task has been complicated by the fact that a wide variety of conditions exist in different workplaces. It is not clear whether OSHA will be able to find an approach that is applicable to all workplaces. The other complicating factors are the minimal scientific evidence on how to prevent ergonomic injuries and the fact that there are multiple causes for many of these injuries, including workplace factors and personal lifestyle.

OSHA RE-OPENS TB RULEMAKING FOR COMMENTS

On 24 January 2002, OSHA re-opened the tuberculosis (TB) rulemaking record, which is a proposed standard to control occupational exposure to TB. This is the second time the proposed standard has been re-opened for public comment. OSHA first published it in October 1997, and the first public hearings were held in 1998. OSHA last re-opened the standard in 1999 to seek comment on new studies that were to be used to assist OSHA in determining the occupational risk of TB exposure. The purpose of the latest re-opening is to give interested parties the opportunity to review and comment on the agency's final risk assessment and on the Institute of Medicine's (IOM) report entitled *Tuberculosis in the Workplace*. The public comment period ends on 25 March 2002.

It is important for those involved in dentistry to note that OSHA's proposed standard to control occupational exposure to TB would exempt most dental clinics from the requirements. However, dentists practicing in hospitals, prisons, and clinics that treat patients who are suspected of having TB **would** be covered by the proposed standard.

HAND HYGIENE

The Centers for Disease Control and Prevention (CDC) has published *Draft Guidelines for Hand Hygiene in Healthcare Settings*, which is presently under public comment. This document is designed to provide a thorough review of scientific evidence regarding handwashing and hand asepsis. Included in it are recommendations to improve hand hygiene practices, the use of gloves and hand lotions, and the wearing of jewelry and artificial nails.

Based on numerous studies, the draft guidelines support the efficacy of alcohol-based hand rubs. Examples of such products include VioNexus (Kerr/Metrex), Viraguard (Veriden), and Prevacare (Johnson & Johnson Medical). Hand rubs have been shown to have a low incidence of dermatitis, and are more effective than traditional soap and water used in handwashing to reduce transient microbes. Using these types of products may overcome some of the factors commonly identified as causing poor compliance with hand washing practices (e.g., lack of accessibility to running water and soap, lack of time, and skin irritation). The guidelines recommend the use of an alcohol-based, waterless, antiseptic agent for decontaminating the hands when they are not visibly soiled. The guidelines go on to state that, although waterless antiseptic agents are preferred, performing hand antisepsis using an antimicrobial soap may be considered in settings where time constraints are not an issue and there is easy access to hand hygiene facilities.

SELF-SEALING STERILIZATION POUCHES

Instrument sterilization is one of the most important processes in the dental clinic. One part of the process is packaging items prior to sterilization. The packaging of instruments, supplies, and other medical devices must ensure sterility to the point of use. Criteria for choosing an appropriate packaging material include the ability of the sterilant to penetrate the material, the material's capacity to dry and to allow its contents to dry, and the material's effectiveness as a barrier to microorganisms. It should also be resistant to tearing and puncturing, have proven seal integrity, and be low-linting. Naturally, it is desirable for the material to also be inexpensive, readily available, and be free of toxic ingredients and nonfast dyes.

Many dental clinics today use self-sealing sterilization pouches (i.e., peel packs) to wrap items. Not all self-sealing sterilization pouches are the same, however. In fact, many of the pouches purchased in dentistry are not acceptable for sale to the medical side because they do not meet medical industry safety standards. Therefore, it is very important that you know what features to look for when purchasing self-sealing sterilization pouches.

Sterilization pouches should be made of medical-grade, surgical, Kraft paper with a transparent 2-mil polypropylene/polyester laminate film. The laminate film should be tinted so you can more easily see punctures or tears that would compromise the film's integrity. The ideal pouch design should have multiple side and end seals with self-sealing adhesive strips that adhere to both paper and the film when the pouch is closed. There should also be a perforated fold to facilitate closure. Tack seals of the laminate film to the pouch's paper portion should be present at the sealing end to prevent curling of the film after sterilization. Curling can result in dust accumulation during storage. Packaging that has a thumb notch is preferred, because the notch makes it a lot easier to grip the pouch when it is opened.

The proper technique for opening a pouch is to separate the film from the paper. The package contents should never be pushed through the film or paper, because this can compromise sterility. It is very important that the film completely separate from the paper during opening. If any portion of the film remains attached during opening, the contents are considered to be contaminated. This is because the remaining attached film has been exposed to day-to-day elements in the air during storage. If any of the contents contact the film during retrieval, they are considered contaminated. One other important factor to consider in a sterilization pouch is the amount of usable space. Clinics should choose the size that best matches the size and shape of the contents that will be wrapped. Overloading or using an undersized pouch can decrease the ability to achieve a proper seal. Any misalignment at the seal interface can create gaps which may compromise sterility.

It is important to test the self-sealing sterilization pouches your clinic has.

1. To test effectiveness, simply water-test it. Seal an empty pouch using the self-adhesive strip. Open the chevron top seal of the pouch, and fill halfway with water. Does it leak water? If so, the pouch does not provide an effective seal. An ineffective seal can be due to poor user technique or a poorly designed seal area (i.e., where the adhesive is sealing to the film only instead of to both the film and paper).
2. To test separation quality, seal an empty pouch and sterilize it. Then separate the film from the paper at the tack seals by grasping the film in one hand and the paper in the other. Completely separate them. If any film remains on the paper, repeat the process with another pouch. If film is left on the paper again, the quality of the pouch is inadequate.

The quality, consistency, and specifications of the packaging material you use are important factors in your sterilization program. All dental clinics should reexamine their practices to ensure that the highest quality products are being used to ensure patient safety.

CLEANING DENTAL INSTRUMENTS

Cleaning instruments is a critical step prior to sterilization because it reduces the number of microorganisms that are present. Proper cleaning removes blood, saliva, tissues, and adherent dental materials. Organic materials left on instruments can interfere with sterilization effectiveness. Cleaning

dental instruments should be done in a designated area, preferably a dental instrument processing center (DIPC) that is centrally located, but separate from the rest of the clinic. Using a designated area reduces traffic flow but facilitates the transport of soiled instruments and sterilized items. Cleaning can be done by manual scrubbing, ultrasonic cleaning, or by using an instrument washer. Dental clinics may want to use more than one method.

Manual scrubbing

Manual scrubbing can be an effective way of cleaning instruments, especially when adherent materials are present. It is not, however, recommended for the routine cleaning of all instruments because it is generally less effective than other methods of cleaning, and it jeopardizes worker safety. Manual scrubbing jeopardizes worker safety because it increases the risk of percutaneous injuries from contaminated items. More effective ways such as using an ultrasonic cleaner or an instrument washer are advantageous not only because of their greater effectiveness; staff assigned to DIPCs can be more efficient because these automated methods free them to perform other tasks while the instruments are being cleaned. Manual scrubbing should be used for instruments that remained soiled after automated cleaning and for those instruments, such as hinged or scissored items, that are extremely difficult to clean.

The following steps are recommended when manual scrubbing instruments.

1. Always wear heavy-duty utility gloves, mask, protective eyewear, and a gown.
2. Proceed slowly and carefully to reduce the chance of percutaneous injuries.
3. Place a warm detergent solution in a shallow pan inside a sink.
4. Place a few instruments in the pan and brush them thoroughly using a long handled brush while they are submerged. This reduces splattering.
5. Rinse the instruments thoroughly, but avoid splattering.
6. Rinse the cleaning brush after use, and allow it to dry.

Ultrasonic Cleaning

Ultrasonic cleaning reduces direct contact with contaminated items and, therefore, decreases the likelihood of percutaneous injuries. Ultrasonic cleaning is usually more effective than manual scrubbing due to the cavitation action of the bubbles produced by the process. It is also more efficient because more instruments can be cleaned at one time. Most dental instruments can be ultrasonically cleaned, except handpieces. They must be cleaned by hand. Loose instruments and instruments placed in cassettes can be cleaned in an ultrasonic cleaner. To clean loose instruments and instrument cassettes, they should be suspended in the cleaning solution and not placed on the bottom of the chamber floor. Placing them on the floor of the ultrasonic results in poor cleaning and excessive instrument movement, which can damage the unit and the instruments. Using a suspending basket or rack aids in positioning loose instruments and cassettes. A cover should be placed on the ultrasonic cleaner during use to avoid aerosol generation into the environment.

A detergent designed for use in an ultrasonic cleaner should be used because these solutions have pH levels that will not harm most metal instrument metals. They also have the advantage of producing cavitation for extended periods.

It is important to follow the manufacturer instructions when cleaning instruments in an ultrasonic cleaner. Instruments should be processed until visibly clean.

The following steps are recommended for ultrasonic cleaning.

1. Proceed slowly and carefully.
2. Presoak or rinse instruments prior to placing them in the chamber.
3. Place a maximum of 20 loose instruments at a time in the holding basket or rack.
4. Limit the number of cassettes being cleaned to ensure that they are completely immersed in the detergent solution.
5. Use a detergent designed for use in ultrasonic cleaners.
6. Change the solution every day, or sooner if visibly contaminated.

7. Operate the unit with the lid on.
8. Process loose instruments for 3 to 6 minutes (adjust time if needed).
9. Process instrument cassettes for 10 to 20 minutes (consult manufacturer instructions).
10. Rinse the cleaned instruments after processing.
11. At the end of the day, empty the chamber, dry it completely, and disinfect the inside, lid, and other accessories.
12. Perform an aluminum foil efficiency test periodically.

Instrument washers

Instrument washers automatically clean and rinse instruments. Depending on design and water temperature, instrument washer types may also sanitize, disinfect, and sterilize. These machines are an excellent way of decontaminating instruments while minimizing handling and, therefore, possible percutaneous injuries. Instrument washers are regulated by the Food and Drug Administration (FDA) and are manufactured specifically for cleaning medical and dental instruments. Household dishwashers are **not** recommended for cleaning contaminated instruments because their manufacturers did not design them for that purpose and they do not have the FDA assurance for safety and effectiveness.

SAFETY OFFICER/COORDINATOR

Each dental clinic should designate a safety officer/coordinator. This person may or may not be the clinic's infection control officer/coordinator. Many times the functions of safety officer and infection control officer overlap. The designated safety officer, with guidance from the employer, should write a safety mission statement and establish a set of safety goals or objectives that have measurable outcomes. Some of these goals may include: correctly maintaining safety documents and records; ensuring that employees are aware of all safety regulations, written safety manuals, and procedure lists; and the accurate monitoring of safety compliance.

The safety officer or coordinator may be responsible for the following: (Please note that some of these duties may overlap with those of the infection control officer/coordinator):

1. Continuously reviewing compliance regulations and recommendations.
2. Preparing, reviewing, updating, and modifying written manuals.
3. Preparing safety protocols that describe procedures in a step-by-step manner.
4. Providing initial, annual, and as-needed employee and contract worker training.
5. Regularly monitoring compliance of employees and contract workers.
6. Establishing and maintaining a post-exposure procedures program including appropriate medical evaluation and follow-up.
7. Reviewing all occupational exposure incidents.
8. Evaluating, selecting, maintaining, and reviewing needed safety products and equipment.
9. Obtaining, organizing, and maintaining Material Safety Data Sheets (MSDSs).
10. Ensuring that hazardous chemicals are labeled and that proper warning signs are posted.
11. Ensuring that smoke alarms function and that fire retarding equipment is present.
12. Ensuring that there is the proper number of fire exits and that evacuation routes are present, clearly identified, and kept clear.

The practice of dentistry varies from clinic to clinic, but the safety documents and records that are needed are similar. The safety officer/coordinator must ensure that the most current regulations are present and are clearly communicated to all employees. These documents include all OSHA-required ones as well as each particular dental clinic's safety procedures (e.g., infection control protocols, radiologic safety lists, emergency contingency plans, and routes of escape). All of these written materials should be reviewed at least annually, and changes in technology should be considered that could improve employee safety.

These written materials should be presented and discussed with all employees, and employees should be encouraged to be active participants in the discussion. As a matter of fact, the new OSHA Needlestick Safety and Prevention Act states that employers are required to solicit input from nonmanagerial

employees about identifying, evaluating, and selecting engineering controls, which includes safer medical devices.

Employees should at least annually be informed of the risks associated with their work. This training should be documented to include date, the topics addressed, and the names of employees who attended.

Handling of workplace accidents may be the responsibility of the safety and or infection control officer/coordinator. Regardless of the individual tasked with this job, it is critically important that they ensure that the proper procedures for post-exposure protocols are in place and followed.

The following are examples of regulatory documents that all dental clinics should have access to:

1. OSHA Bloodborne Pathogens Standard (29 CFR Part 1910.1030).
2. OSHA Hazard Communication Standard (29 CFR Part 1910.1200).
3. OSHA Occupational Exposure to Hazardous Chemicals in Laboratories (29 CFR Part 1450).
4. OSHA Employee Emergency and Fire Prevention Plans (29 CFR 1910.38).
5. Any other applicable federal, state, and local regulatory documents.

The following are examples of specific dental clinic policy documents.

1. Written exposure control plan based on OSHA guidance.
2. Written hazard communication program based on OSHA guidance.
3. OSHA Publication 3165 - *Job Safety and Health Protection* poster (or state poster if applicable).
4. Fire prevention plan based on OSHA guidance.
5. Employee emergency plan based on OSHA guidance.
6. Policies not covered by an OSHA standard, but required by other federal, state, or local agencies.

The following are examples of employee-related documents.

1. Initial, annual, and as-needed training required by OSHA regulatory standards.
2. OSHA Form 300 - *Log of Work-Related Injuries and Illnesses* (if required).
3. OSHA Form 300A - *Summary of Work-Related Injuries and Illnesses* (if required).
4. OSHA Form 301 - *Injury and Illness Incident Report* (if required).
5. OSHA employee medical records (these must be treated as confidential documents).

Other types of documents can include:

1. A written inventory of hazardous chemicals.
2. Material Safety Data Sheets (MSDSs).
3. Fire extinguisher and sprinkler certifications.
4. Routes of egress during an emergency.
5. Lists of contacts and phone numbers in case of an emergency.
6. Posted protocols, warning signs, and other forms of cautionary materials.

INFECTION CONTROL Q & A

Question: What are the correct procedures following an exposure to blood or other potentially infectious materials?

Answer: The first step is to administer first aid. Immediately clean the needlestick or wound with soap and water or flush/rinse the affected area (i.e., eyes, nose, mouth, or skin) with copious amounts of water. Report the exposure to a designated infection control or safety supervisor and document the incident. Include the route(s) of exposure involved, the circumstances under which the exposure occurred, and the

identity of the source patient (if known and permitted by law). The exposed individual should then be referred to a qualified healthcare provider for evaluation and follow-up. Immediate referral is essential, because postexposure prophylaxis is most efficacious when administered within 1 to 2 hours after the exposure incident.

Question: What is the proper way to disinfect an environmental surface?

Answer: Disinfection consists of three steps.

1. Donning utility gloves, mask, protective eyewear, and protective clothing to guard against chemical exposure during cleaning and disinfection.
2. Cleaning the surfaces with a cleaning agent by vigorously wiping the contaminated surfaces with paper towels.
3. Disinfecting the precleaned surface by applying the disinfectant over the entire precleaned surface. Allow the surface to remain moist for the contact time recommended by the manufacturer. If the surface is still wet when patient treatment is to begin, wipe the surface dry with clean towels. If the surface will contact the patient's skin, rinse the residual disinfectant with water.

Most infection control experts agree that using a single product that is formulated to both clean and disinfect environmental surfaces can improve clinic turn-around time and reduce cost.

Question: Our clinic wants to purchase new gloves. What features should we consider when selecting gloves?

Answer: The following features should be considered when purchasing gloves.

1. Ease of donning. Are the gloves easy to put on when hands are dry and when they are damp?
2. Barrier protection. Do the gloves provide an intact barrier without holes?
3. Durability. Are the gloves resistant to tearing and puncture when in use?
4. Consistent fit over time. How well do the gloves fit when first placed and after extended use?
5. Tactile sensitivity. Is the user able to manipulate small objects with the gloves?
6. Grip. Can the user grasp and hold slippery objects?
7. Comfort. Does the user complain of cramping and/or fatigue?
8. Non-irritating. Does the user complain of skin irritation?
9. Cost. How much do the gloves cost compared to the gloves that are presently being used?
10. Protein levels. If considering latex gloves, what is the protein content?
11. Powder or powder-free. Does the clinic want powder-free gloves?

Include the end-users when selecting the right glove for use. Determine the risks associated with the tasks to be performed while wearing the gloves, such as contact with blood or other body fluids, sharp instruments, or specific chemicals. Determine if any of the users are sensitive to glove materials. Of course, cost is an important consideration when purchasing gloves, but the clinic must also consider the cost of poor product performance, waste, and employee downtime due to illness.

Question: Our clinic uses cassettes for instrument processing. A lot of times during a procedure, a provider discovers that he needs an instrument that isn't in the kit. This delays patient treatment because we have to get the instrument for him. Is there a way to keep this from happening?

Answer: The challenge for dental instrument processing personnel is to offer the healthcare provider, in a timely manner, properly processed instruments needed for a procedure. Missing or damaged instruments

create stress, confusion and lost productivity. Dental clinic personnel must work together to identify policies and procedures to address these concerns. This requires communication, problem solving, and team work in order to identify solutions.

Knowing at all times where instruments are and their status is crucial. This is the responsibility of both the dental assistant and dental instrument-processing individual. Dental assistants must notify the dental instrument-processing individual when instruments need to be replaced because they have been damaged or are missing from a cassette. This must be done prior to the next cycle of instrument reprocessing. It is also imperative that the dental instrument-processing person confirm that all required instruments are in the cassette before reprocessing.

From the point of view of the dental instrument-processing individual, it is important to have an organized, easy-to-clean, effective cassette system. This is easily accomplished by using standardized, organized cassette systems with protective inserts. Visual aids such as count sheets and illustrations or photographs of the layout of instrument sets within the cassette significantly improves instrument management. Also, simplifying the instrument sets saves time, money, duplication, and excess inventory.

The goal of instrument processing is to serve and protect the patient. By addressing the issue of missing and damaged instruments, we can reduce stress in our clinics, while at the same time save money, and provide a better level of care for our patients.